1. What is REST?

Answer: REST, or Representational State Transfer, is an architectural style for designing

networked applications. It relies on a stateless communication model where clients can

access and manipulate resources using standard HTTP methods (GET, POST, PUT, DELETE).

REST (Representational State Transfer) is an architectural style for developing web

services that exploit the ubiquity of HTTP protocol and uses the HTTP method to define

actions. It revolves around resources where every component is a resource that can be

accessed through a shared interface using standard HTTP methods.

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2. What is a RESTFul Web Service?

Answer: A RESTful web service is a type of web service that follows the principles of

Representational State Transfer (REST). It uses standard HTTP methods (such as GET,

POST, PUT, DELETE) to perform operations on resources, and it typically communicates

using JSON or XML for data interchange. RESTful services are designed to be simple,

scalable, and stateless, making them suitable for building distributed and easily

maintainable web applications.

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3. What is a “Resource” in REST?

Answer: REST architecture treats any content as a resource, which can be either text files,

HTML pages, images, videos, or dynamic business information.

REST Server gives access to resources and modifies them, where each resource is identified

by URIs/ global IDs.

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4. What is the most popular way to represent a resource in REST?

Answer: REST uses different representations to define a resource like text, JSON, and XML.

XML and JSON are the most popular representations of resources.

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5. Which protocol is used by RESTful Web services?

Answer: RESTful web services use the HTTP protocol as a medium of communication

between the client and the server.

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6. What are some key characteristics of REST?

Answer: Key characteristics of REST are :

\* REST is stateless, therefore the SERVER has no status (or session data) With a well-applied REST

API, the server could be restarted between two calls, since all data is transferred to the server

\* Web service uses POST method primarily to perform operations, while REST uses GET for accessing resources.

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7. What is messaging in RESTful Web services?

Answer: RESTful web services use the HTTP protocol as a communication tool between

the client and the server. The technique that when the client sends a message in the form

of an HTTP Request, the server sends back the HTTP reply is called Messaging. These

messages comprise message data and metadata, that is, information on the message itself.

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8. What are the core components of an HTTP request?

Answer: An HTTP request contains five key elements:

1. An action showing HTTP methods like GET, PUT, POST, and DELETE.

2. Uniform Resource Identifier (URI), which is the identifier for the resource on the server.

3. HTTP Version, which indicates HTTP version, for example-HTTP v1.1.

4. Request Header, which carries metadata (as key-value pairs) for the HTTP Request message.

Metadata could be a client (or browser) type, format supported by the client, format of a message

body format, cache settings, and so on.

5. Request Body, which indicates the message content or resource representation.

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9. What are the most commonly used HTTP methods supported by REST?

Answer:

\* GET is only used to request data from a specified resource. Get requests can be cached

and bookmarked. It remains in the browser history and haS length restrictions. GET

requests should never be used when dealing with sensitive data.

\* POST is used to send data to a server to create/update a resource. POST requests are

never cached and bookmarked and do not remain in the browser history.

\* PUT replaces all current representations of the target resource with the request payload.

\* DELETE removes the specified resource.

\* OPTIONS is used to describe the communication options for the target resource.

\* HEAD asks for a response identical to that of a GET request, but without the response body.